

## **International Space Station**

The International Space Station is the most complex scientific and technological endeavor ever undertaken—a peaceful, cooperative effort involving support from five space agencies representing 15 nations.

The station's first resident crew, Expedition 1, marked the beginning of a permanent international human presence in space, arriving at the station in a Russian Soyuz capsule in November 2000. The International Space Station is the longest continuously populated spacecraft ever to orbit the Earth. Station crews generally stay on orbit for six months at a time. With nine rooms, two toilets, two kitchens and two mini-gyms, the completed space station comfortably accommodates its crews.

The station also provides the first laboratory complex where gravity, a fundamental force on Earth, is virtually eliminated for extended periods. This ability to control the variable of gravity in experiments, and to quickly change the variables of experiments in the same way

Expedition 1 Flight Engineer Sergei Krikalev works out on the ergometer in the Zvezda service module.

that laboratories on Earth do, opens up unimaginable research possibilities.

The space station is vital to human exploration because it's where we're learning how to combat the physiological effects of being in space for long periods. It's our test bed for technologies and our decision-making processes, when things go as planned and when they don't.

The station, an unprecedented, state-of-the-art orbiting laboratory complex, continues to expand the boundaries of space research. The unique capabilities of its laboratories will lead to discoveries that will benefit missions farther into outer space. These discoveries already are benefitting people all over the world, and the space station is only now complete and considered "open for business."

Using the station to study human endurance in space and test new technologies and techniques, NASA will prepare for longer journeys to other entities, such as Mars and beyond.

National Aeronautics and Space Administration

**Lyndon B. Johnson Space Center** Houston, Texas 77058

www.nasa.gov



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